

across America was mostly destroyed by the advances of Pleistocene ice, is full of endemics and epibiotics. We have brought back in two seasons more than 175 species never before known from Newfoundland, but there are hundreds of others yet to be found; and many of them, like many already known, will throw a vivid light upon the relative ages and the rate of evolution of species.

EXPLANATION OF PLATES 153–155

Pl. 153. Fig. 1 (upper). Western spur of Ha-Ha Mountain, showing ancient weathering and lack of recent planing by an ice-sheet. Fig. 2 (left). Deeply weathered limestone rock-barren back of Savage Cove, characteristic near sea-level in northwestern Newfoundland, the rotted rock-mantle not removed by a recent ice-sheet. Vegetation here occupies the deep fissures, but in areas where the mantle has disintegrated into fine gravel and clay the plants are more numerous and are generally dispersed. Fig. 3 (right). Bayard Long collecting *Ranunculus pedatifidus* var. *leiocarpus*, western face of Ha-Ha Mountain.

Pl. 154. Fig. 1 (upper). On the tableland of Bard Harbor Hill, deeply mantled with angular blocks and gravel; Doctor Hill to the south. Fig. 2 (left). Horizontal limestones, washed by the sea, St. John's Island. Fig. 3 (right). Horizontal limestones, beyond the reach of the sea, St. John's Island; the talus not removed by sea nor glacier.

Pl. 155. Fig. 1 (upper). John Kanés's Ladder and limestone escarpment to the southwest, Doctor Hill. Note the great accumulation of talus. Fig. 2 (left). Escarpment of Doctor Hill, northeast of John Kanés's Ladder. Note the high talus. Fig. 3 (right). Looking directly up John Kanés's Ladder. Note the long-weathered and rotted rock-wall.

(To be continued.)

A NEW NORTH AMERICAN VARIETY OF CYSTOPTERIS FRAGILIS.

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CYSTOPTERIS FRAGILIS (L.) Bernh., var. **laurentiana**, n. var., planta plerumque valida, frondibus 3.5–4.8 dm. altis, laminis 19–34 cm. longis, 7–13 cm. latis, rarius minoribus; stipitibus rubro-tinctis; pinnulis et saepe earum lobis obtusis, indusiis et saepe rhachibus pinnarum subtus minute glandulosis; paleis rhizomatis eglandulosis.

Usually a large plant, the fronds 3.5–4.8 dm. high, their blades 19–34 cm. long, 7–13 broad, only occasionally smaller; pinnules and often their segments obtuse; stipes tinged with red; indusia and frequently the rachis of the pinnae beneath, minutely glandular; scales of the rhizome not glandular-margined.—NEWFOUNDLAND: shaded limestone rocks in woods on southwestern slope of Bard Harbor Hill, Highlands of St. John, July 27, 1925, *Fernald, Wiegand, Long, Gilbert & Hotchkiss*, no. 27,214; wooded steep shady slope of

Mt. Moriah, Bay of Islands, Aug. 11, 1924, *Fernald, Long & Dunbar*, no. 26,152; wet shaded rock, Birchy Cove (Curling), Humber Arm, July 6, 1910, *Fernald, Wiegand & Kittredge*, no. 2329; ravine, Green Gardens, Cape St. George, July 22, 1922, *Mackenzie & Griscom*, no. 11086. QUEBEC. RIMOUSKI COUNTY: shaded or wet limestone, limestone-conglomerate, and sandstone ledges, Bic, July, 1907, *Fernald & Collins*, nos. 803, 811, 814; limestone-conglomerate cliffs, headland north of Baptiste Michaud's, Bic, July 18, 1904, *Fernald & Collins*, 2 sheets, TYPE in Gray Herb. MATANE COUNTY: hornblende-schist ledges along Cap Chat River, Joffre, July 20, 1922, *Fernald & Pease*, no. 24,790. GASPE COUNTY: calcareous cliffs, gorge of River Ste. Anne des Monts, Aug. 15, 1906, *Fernald & Collins*, no. 285; falaises de la Montagne St. Alban, alt. env. 250 m., July 19, 1923, *Marie-Victorin, Rolland-Germain, Brunel & Rousseau*, no. 17040; blocs isolés de conglomérat, Ile Bonaventure, Percé, July 28, 1923, same collectors, no. 17042. MAGDALEN ISLANDS: dans les rochers de gypse, Cap-aux-Meules, Sept. 8, 1919, *Marie-Victorin & Rolland-Germain*, no. 9333. CAPE BRETON ISLAND: dolomite ledges west of Dingwall, Aug. 18, 1914, *Nichols*, no. 974; moist sink-holes in plaster, South Ingonish, Aug. 6, 1914, *Nichols*, no. 678.

The variety here proposed adds one more to the many endemic forms detected by Prof. Fernald and his co-workers in the region about the Gulf of St. Lawrence. From all other east-American forms of *C. fragilis*, it is at once distinguished by its glandular indusia. The glands are small and tend to occur toward the base of the indusium, and are sometimes hard to see in dried material; but examination of a few indusia under the binocular will reveal them. From typical *C. fragilis*, which grows with it in the Laurentian area, and into which it passes, it can usually be readily distinguished by its greater size and blunt pinnules, characters which, Prof. Fernald states, give it in the field the aspect of a *C. bulbifera* without the long apex of the frond. *C. fragilis* var. *sempervirens* Moore (var. *canariensis* (Willd.) Milde) of the Azores and Canary Islands also has glandular indusia, but, though attaining the dimensions of var. *laurentiana*, it is more slender, the stipes are always pale, the scales of the rhizome are glandular-margined, and the leaf-form, though more or less variable, is never that of the American plant.

Schinz & Thellung, following Chiovenda¹ and Farwell,² write *Cystopteris Filix fragilis*, for the reason that the trivial name is printed "*F. fragile*" in the first edition of the Species Plantarum and that the same abbreviation is there used for the universally accepted

¹ Ann. di Bot. i. 210 (1904). Passage not seen; citation from Schinz & Thellung

² Ann. Rep. Mich. Acad. Sci. vi. 200 (1904).

trivial names *Filix-mas* and *Filix-femina*.¹ There is one point in this connection, however, the significance of which these authors seem to have overlooked. In every other case in which Linnaeus uses a double specific name composed of a substantive and an adjectival element, the latter agrees in gender with its own noun, not with the name of the genus, if the two differ.² *Asplenium Ruta-muraria*, *Lysimachia Linum-stellatum*, and *Vaccinium Vitis-idaea* are examples. If Linnaeus had intended a double trivial name in this case, he would presumably have followed his otherwise invariable custom and written "*F. fragilis*." Instead, we find "*fragile*," agreeing not with *Filix*, but with *Polypodium*, the genus under which he placed the species; and the "*F.*" is omitted in the second edition of the *Species Plantarum*, though retained for "*F. mas*" and "*F. femina*," Furthermore, *Filix mas* and *Filix femina* were phrase-names universally known in Linnaeus's time; but there is nothing to indicate, at least in the Linnaean citations, that "*Filix fragilis*" was anything of the kind.

Under these circumstances the natural inference is that the "*F.*" of the first edition of the *Species Plantarum* was an error, corrected by Linnaeus at the first opportunity. It did, indeed, persist through several editions of the *Systema*; why I do not know unless through inadvertence. At any rate, it seems best to give the familiar "*C. fragilis*" the benefit of the doubt, and to retain it, rather than to displace it on doubtful evidence; and I have accordingly retained it here.

GRAY HERBARIUM.

EUPHRASIA OAKESII IN HAMILTON INLET, LABRADOR.—During the summer of 1925 I made a small collection of plants from the region around Hamilton Inlet, Labrador. Subsequent study proved one specimen to be *Euphrasia Oakesii* which, according to the revision of the genus by Fernald and Wiegand (*RHODORA*, xvii. 185), had not been reported before north of Battle Harbor, about 200 miles south. The plant was found on August 8, at Indian Harbor at the mouth of the Inlet, growing quite abundantly in mossy turf in a notch of the ridge of rock that forms the backbone of the island. The situation

¹ Vierteljahrss. Naturf. Gesellsch. Zürich lxi. 414 (1916).

² See Nieuwland's list of such names, *Am. Mid. Nat.* ii. 100-116 (1911).